

EVENT RACK / STAND
BACKGROUND OF THE INVENTION

The present invention is directed to a portable and expandable event rack system, and in particular, to an event rack system that may be used to park bicycles, display information, or cordon off an area.

Special events, such as fairs, food festivals, firework celebrations, city festivals, college athletic games, concerts, bicycle tours and competitions, and outdoor fundraisers are popular activities, particularly in summertime. Such events often attract a significant number of people to a particular location for a limited time. Additionally, many communities have destinations such as downtown shopping districts, parks, pools, beachfronts, or other such recreation areas that undergo intermittent time periods of congested use, as on weekends or holidays. Special event planners and municipality officials are faced with many challenges when dealing with such intermittently congested areas. For example, such challenges include the communicating of directional and other types of information to the people attending the special event or visiting the park, and cordoning off areas for special use such as food courts, games, or the like. An additional challenge is the providing of safe parking for bicycles, which is also important to provide in order to further encourage the use of bicycles as a transportation means to such events.

Individuals attending or visiting special events or parks often times will ride bicycles to reach such destinations as this is a popular family activity and an enjoyable method of commuting that avoids the difficulties and costs of parking automobiles at such locations. Further, the use of bicycles as a method of transportation due to the benefits it provides as part of a healthy lifestyle is resulting in a growing number of individuals traveling to such locations by bicycles.

Standard commercial bicycle racks are long, linear units that are typically made to be fixed in a single location, are not collapsible, and are usually made of heavy, metallic material. Such bicycle racks are adapted to receive a limited number of bicycles and enable the bicycles to be locked to the rack, typically by locking a wheel of the bicycle to the rack. However, it is not desired to place many such

standard fixed bicycle racks at locations undergoing intermittent periods of use as the majority of time they are not used, which is particularly troublesome at locations having limited space. Because they are not used, they may collect debris, rust, or be vandalized. It is also not desired to bring those heavy standard bicycle racks to such locations on an as needed basis because they are cumbersome, heavy and difficult to transport, and expensive to store.

One method of cordoning off an area is by the use of snow fencing. While this is an inexpensive structure, it is problematic in that snow fencing is visually unsightly and awkward to set up because it does not stay upright on its own and, therefore, requires additional supporting structures. Furthermore, snow fencing cannot easily support bicycles for parking as, for example, it is difficult to unstack bicycles that are leaned against the fencing.

Finally, the displaying of information is essential at such locations for the safety and enjoyment of attendees. For example, alerting attendees to the locations of medical assistance, where to find food and water, and times of operation are important for an orderly gathering. Several methods of communicating information are available, such as portable signs with concrete bases, small posters that are stapled to telephone poles, or banners strung to vertical objects such as lamp posts and trees. However, signs with concrete bases are heavy and cumbersome, small posters are not highly visible, and adequate vertical objects are not always readily available and banners strung to such objects are difficult to install.

As noted, there are several difficulties associated with the various bicycle parking, area cordoning structures, and information displaying methods described above. Therefore, a structure is needed that may be alternatively used to park bicycles, display information, and cordon off an area. Further, such a structure should be easy to assemble, configurable to different specific locations, and cost efficient.

SUMMARY OF THE INVENTION

A portable event rack stand assembly according to one aspect of the present invention includes two support stands having frames and stand sleeves where a connecting member is removably receivable by the stand sleeves and where the connecting member provides a convenient location to park bicycles.

According to another aspect of the portable event rack stand assembly of the present invention, two support stands having frames and stand sleeves further include

mounting posts adapted to removably receive a mounted member. The mounted member may be a banner display that communicates information or may be a cover assembly that protects objects located in between the support stands.

An expandable event rack stand system of yet another aspect of the present invention includes a plurality of connecting members and a plurality of support stands, where the connecting members are supportable by the support stands and include first and second connecting ends such that the first connecting end of one connecting member may be connected to the second connecting end of an adjacent connecting member, thereby forming an expandable rack.

A bicycle parking and information display stand according to the present invention includes a frame having an attached stand sleeve, where the frame is adapted to be placed on a support surface and the stand sleeve defines an axis substantially parallel to the support surface.

An expandable event rack stand system of still another aspect of the present invention also includes a plurality of connecting members and a plurality of support stands. The connecting members are supported by the support stands and include first and second connecting ends, where the first connecting end of one connecting member may be connected to the second connecting end of an adjacent connecting member, and where connecting the various connecting members that are supported by support stands together forms a substantially enclosed corral having a first corral end and a second corral end.

Another aspect of the portable event rack stand assembly of the present invention includes two support stands having frames, where each frame includes a stand sleeve and a mounting post, and where a connecting member having first and second connecting member ends is removably receivable by the two stand sleeves, and a mounted member is receivable by the two mounting posts.

The present invention provides a multi-functioning event rack that may be used to park bicycles, display information, and/or cordon off an area. The event rack includes multiple support stands and connecting members that are interconnectable and variously configurable such that different sized and shaped event racks may be created. The event rack of the present invention further enables multiple methods of displaying information. As the event rack of the present invention is easily assembled and disassembled, light weight relative to typical bicycle structures, and multi-

functioning, it is ideal for use at locations that intermittently attract a large number of people by bicycles or otherwise.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a stand assembly of the event rack of the present invention showing a bicycle parked thereon and a banner display in exploded view above the stand assembly;

FIG. 2 is a perspective view of several linear racks and a corral utilizing components of the event rack;

FIG. 3 is a front, elevational view of a support stand of the present invention;

FIG. 4 is a side, elevational view of the support stand of FIG. 3;

FIG. 5 is a top, elevational view of the support stand of FIG. 3;

FIG. 6 is a perspective view of a connecting member received within a stand sleeve of a support stand of the present invention disclosing a coupler attached to the connecting member and two locking methods;

FIG. 7 is a perspective view of an alternative stand assembly utilizing a cover assembly that provides protection to bicycles parked on the support stand;

FIG. 8 is a perspective view of a stand-alone banner display of the present invention;

FIG. 9 is a perspective view of an enclosed corral formed utilizing components of the event rack;

FIG. 10 is a perspective view of the support stand of FIG. 3 supporting a flag display; and

FIG. 11 is a perspective view of the support stand of FIG. 3 supporting a lighting stand.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention is embodied in a portable and collapsible event rack structure. In particular, the preferred embodiment of the present invention comprises a plurality of support stands and connecting members that can be assembled together to create an expandable and variously configurable bicycle parking structure and/or be used as a display stand to communicate information.

One aspect of the event rack of the present invention can be seen in FIG. 1 as stand assembly 10. Stand assembly 10 may be used to park bicycles and/or display

information and comprises two support stands 12 that are spaced apart and are able to support a removable connecting member 14. Additionally, the two spaced apart support stands 12 may be used to support a mounted member, such as banner display 16 shown in FIG. 1. The inclusion of locking rings 18 with stand assembly 10 provides a convenient locking structure for bicycles 20 parked on stand assembly 10 and the addition of locks 22 prevents unwanted disassembly of stand assembly 10.

Significantly, as shown in FIG. 2, stand assembly 10 is adapted to expandably receive additional support stands 12 and connecting members 14 such that variously configured event rack structures may be formed to increase the bicycle parking capacity or cordon off an area at, for example, a special event such as a fair or festival or the like. In a preferred embodiment, stand assembly 10 is expanded using a plurality of corner assemblies 24 and couplers 26 (see FIG. 1). As shown, such alternatively configured event rack structures include, for example, linear racks 28 enclosed by a generally rectangularly shaped corral 30. The corral 30 may be used to park bicycles 20 and/or provide a barrier to an interior area 32. The interior 32 of corral 30 may be used for parking bicycles 20 on linear or variously configured racks 28, or used for other activities that take place at special events, such as a ticket sale location, food court, game area, tailgating site, or the like.

As best understood from FIGS. 3-5, each support stand 12 comprises a generally triangular frame 34, a mounting post 36 extending vertically upward from the upper apex of frame 34, a stabilizer foot 40 located at the base of frame 34, and an attachment member shown as stand sleeve 38 that is also attached to frame 34 at the upper apex.

Frame 34 of the embodiment shown comprises two side members 42, 44 and a base member 46 from whose ends side members 42, 44 angularly converge upwardly. The mounting post 36 is integrally joined to frame 34 and extends upwardly approximately 12 inches from the upper apex or intersection of the side members 42, 44. In the preferred embodiment, mounting post 36 and frame 34 are formed from a continuous solid metallic rod of circular cross section that is bent to simultaneously form mounting post 36 and frame 34. A preferred diameter for the circular rod is approximately 5/8 of an inch, while the preferred height of frame 34 is 44 inches from base member 46 to the upper apex of side members 42, 44. An end 43 of one of the side members 44 is affixed, as by welding, to the other side member 42 at the intersection of side members 42, 44 and mounting post 36. Mounting post 36 also

includes a stop 48, formed as a flat washer affixed to mounting post 36 above the intersection of mounting post 36 and side members 42, 44. Additionally, a posthole 50, comprising an aperture extending through post 36, is located on mounting post 36 (see FIG. 6).

The stabilizer foot 40 is formed as a generally square member fixedly secured to base member 46 of frame 34 and extends in a horizontal plane on either side of a vertical plane formed by frame 34. Thus, foot 40 extends generally at 90° to the plane of frame 34. In the preferred embodiment, the stabilizer foot 40 is made of solid metallic rod similar to frame 34 and mounting post 36 and is formed from two separate and symmetrical halves 41, where each half 41 is affixed, as by welding, to base member 46 such that base member 46 and foot 40 are co-planar and flush with one another. As can be understood from the various views, stabilizer foot 40 enables support stand 12 to be independently positioned on a support surface such that frame 34 will remain standing in a generally perpendicular orientation relative to the support surface (see FIGS. 10 and 11). Additionally, the horizontal and co-planar orientation of stabilizer foot 40 provides a convenient location to place ballast and thereby further prevent the tipping of stand 12. For example, five-gallon pails filled with water or stand bags may be placed on stabilizer foot 40, which is particularly helpful when stand assembly 10 receives banner display 16 under windy conditions.

As noted above, the attachment member of this preferred embodiment is disclosed as stand sleeve 38, which is formed as a hollow metallic tube and is attached to frame 34 at the upper apex or intersection of the side members 41, 42 and just below mounting post 36. In the preferred embodiment, stand sleeve 38 is welded to both side members 41, 42 such that stand sleeve 38 is normal to a plane defined by base 46 and side members 41, 42 of frame 34, and is, thus, generally parallel to foot 40. In this orientation, stand sleeve 38 defines an axis that is generally parallel to the support surface upon which stabilizer foot 40 supports frame 34. The stand sleeve 38 of this preferred embodiment is approximately nine inches in length and has an approximately 1 3/8 inch ID and 1 3/4 inch OD.

In the preferred embodiment, the support stand 12 assembly comprising triangular frame 34, mounting post 36, stop 48, stabilizer foot 40, and stand sleeve 38 are coated with a plastic or polymeric material, such as an elastomeric coating. Both the inside and outside surfaces of stand sleeve 38 are so coated. This plastic coating provides corrosion resistance, which is important in stand assemblies 10 that are generally used

outdoors. However, there are circumstances when stand assemblies 10 may be used indoor, such as within a school gymnasium or the like. In such an environment, the plastic coating has the additional benefit of providing scuff resistance to prevent damage to the indoor floor surface.

As noted above, stand assembly 10 also includes connecting member 14. FIG. 1 shows connecting member 14 as a straight hollow pipe having first and second connecting member ends 52, 54. In this preferred embodiment, connecting member 14 is a conduit manufactured and sold by the Plasti-Bond division of Robroy Industries, located in Gilmer, Texas. This connecting member 14 has threaded ends 53 and is made of a hollow metallic material having a polymeric coating on its exterior between threaded ends 53 and a urethane coating on its interior. In the preferred embodiment, connecting member 14 is approximately 10 feet in length, with an approximately 3/4 inch ID and 1 1/8 inch OD.

Connecting member 14 also includes lock holes 55 at the first and second connecting member ends 52, 54, lock holes 55 being located near the threads 53, but on the non-threaded portion of connecting member 14. Each lock hole 55 extends entirely through member 14 and is adapted to receive a lock 22. As shown throughout the several views, the lock 22 received by lock hole 55 is a trailer hitch receiver lock, an example of which is sold by Hidden Hitch International, of Huntsville, Ontario, Canada as Part #90050. This style of lock 22 has a longer, narrow shaft and larger lock ends 57, 59, where one of the lock ends 57 is removable from the shaft, allowing the shaft to be passed through lock hole 55 of connecting member 14. Once the shaft is inserted through lock hole 55, the removable lock end 57 may be replaced such that lock 22 is fixedly secured to connecting member 14. However, it is understood that alternative styles of locks 22, such as a standard padlock, may be used as long as the hasp of the lock is sufficiently long enough to extend through connecting member 14.

FIG. 1 also reveals that locking rings 18 may be included on stand assembly 10. Locking rings 18 are formed from 3/8 inch diameter metallic rod that is bent into a generally oval shape. Once the desired shape is created the ends of the rod are secured together, as by welding, such that a continuous locking ring 18 is formed. The metallic locking ring 18 is then coated with a polymeric material to provide corrosion resistance. Alternatively, locking rings 18 are made from stainless steel rod and not coated.

Also shown in FIG. 1, stand assembly 10 may include a mounted member shown as banner display 16. Banner display 16 includes two spaced apart legs 58, each of which has a mounting hole 60 extending entirely through leg 58. Banner display 16 also includes a horizontal support rod 62 connected by corner banner couplers 64 to the vertical legs 58. Ropes, quick ties, or strings 66 are then used to secure banner 70 to vertical legs 58 and horizontal support rod 62. Typically, vertical legs 58, couplers 64, and horizontal support rod 62 are made of a hollow metallic material, such as aluminum, and are adapted to telescopically, insertably connect with each other. Alternatively, banner display 16 could be formed without rod 62, in which case banner 70 would be connected to legs 58.

Stand assembly 10 is then assembled using support stands 12, connecting member 14, locking rings 18, and banner display 16 as follows: Two support stands 12 are placed on a support surface a distance apart that is less than the length of a connecting member 14 such that the stand sleeves 38 of the support stands 12 are axially aligned. A connecting member 14 is inserted into one of the stand sleeves 38 such that the first connecting member end 52 is located proximate a stand sleeve 38. Because the ID of stand sleeve 38 is sufficiently larger than the OD of the connecting member 14, connecting member 14 is able to slide within stand sleeve 38. Locking rings 18 are placed over connecting member 14 and connecting member 14 is then slidably inserted into stand sleeve 38 of the other support stand 12 such that the second connecting member end 54 is located proximate to the other stand sleeve 38. In this orientation, connecting member 14 is horizontally supported by the stand sleeves 38 and the locking rings 18 are contained on connecting member 14 between the support stands 12. As the internal width of the locking rings 18 is wider than the OD of the connecting member 14, the locking rings 18 may be slidably positioned along connecting member 14 between the support stands 12.

Next, banner display 16 is assembled to the support stands 12. The vertically extending mounting posts 36 of frames 34 are adapted to receive the hollow vertical legs 58 of banner display 16. The legs 58 are placed over the mounting posts 36 and are supported on stops 48 such that post holes 50 of mounting posts 36 align with mounting holes 60 of the vertical legs 58. In this orientation, pins 68 can be inserted into mounting holes 60 and post holes 50 such that banner display 16 is secured to support stands 12. The banner 70 of the banner display 16 may then be used to

communicate various types of information, such as advertisements, directions, event schedules, and the like.

When connecting member 14 is assembled to support stands 12 such that connecting member ends 52, 54 extend outwardly beyond stand sleeves 38, as shown in FIG. 1, locks 22 may be inserted into lock holes 55 such that connecting member 14 is prevented from being removed from support stands 12. The ability to secure connecting member 14 to support stands 12 in this manner deters and prevents theft of bicycles 20 locked to connecting member 14 (the locking of bicycles 20 to connecting member 14 is described below).

As also shown in FIG. 1, additional theft prevention can be provided by looping a chain 72, wire cable, or the like, around a fixed object, such as a lamp post 74, street sign, telephone pole, or the like, and attaching the ends of the chain to one of the locks 22. This prevents theft or vandalism of the entire stand assembly 10.

An assembled stand assembly 10, as described above, provides a convenient and portable device for parking bicycles 20. As shown in FIG. 1, the horn of a bicycle seat 76 may be placed over connecting member 14, thereby supporting bicycle 20 and preventing it from tipping over. A locking ring 18 may then be slid along connecting member 14 to the location of bicycle 20. Using a bicycle lock, such as the D-style lock 78 shown, bicycle 20 is then secured to locking ring 18. Additionally, bicycles may also be leaned against the support stands 12 of stand assembly 10, which is convenient for bicycles having alternative frame types, such as children's bicycles.

As noted above, and displayed in FIG. 2, stand assembly 10 is able to receive additional support stands 12 and connecting members 14 such that variously configured stand structures may be formed, such as the linear racks 28 and generally rectangular shaped corral 30 shown. FIG. 1 illustrates that the components of the preferred embodiment that are used to create these alternative structures are couplers 26 and corner assemblies 24.

The coupler 26 of the preferred embodiment is, like connecting member 14, manufactured and sold by the Plasti-Bond division of Robroy Industries and is adapted to mate with and join connecting members 14 together. The coupler 26 includes an internally threaded portion having female threads that receive the male threads of the threaded ends 53 of two connecting members 14. Coupler 26 is coated on its exterior with a polymeric material and includes gripping ribs 80. Additionally, a plastic sleeve 81 is included on either end of coupler 26 that, when coupler 26 is

attached to connecting member 14, covers threads 53 of connecting member 14 and prevents moisture from reaching threads 53.

As best seen in FIG. 1, a corner assembly 24 comprises two couplers 26 and an elbow 82. As with connecting member 14 and coupler 26, elbow 82 is also manufactured and sold by the Plasti-Bond division of Robroy Industries. Elbow 82 is similar in construction to connecting member 14 in that it has threaded ends 84 with thread dimensions that are equivalent to the thread dimensions of connecting member 14 and are adapted to be threadably received by coupler 26. Elbow 82 is also made of a hollow metallic material and coated on its exterior with a polymeric material.

Assembly of a linear rack 28 as shown in FIG. 2 is accomplished as follows: Beginning with an assembled stand assembly 10, as described above, a coupler 26 is threaded onto one of the connecting member ends 52 extending beyond stand sleeve 38. An additional support stand 12 is then placed a distance of approximately the length of a connecting member 14 away from the stand assembly 10 in an orientation where the stand sleeve 38 of the support stand 12 is axially aligned with the stand sleeves 38 of the stand assembly 10. A connecting member 14 is then slidably inserted into the stand sleeve 38 of the additional support stand 12 such that one connecting member end 52 extends just beyond the stand sleeve 38 of the additional support stand 12 and the opposite connecting member end 54 is located near the coupler 26 that is attached to connecting member 14 of stand assembly 10. Because the stand sleeve 38 ID is sufficiently larger than the connecting member 14 OD, the connecting member 14 may be rotated within the stand sleeve 38 so that the threaded connecting member end 54 may be connected to coupler 26. Additional connecting members 14 and support stands 12 may be connected using couplers 26 as described above such that linear racks 28 of varying length are formed.

As can be understood from the above-described assembly steps and the linear racks 28 shown in FIG. 2, the linear racks 28 of the preferred embodiment include one more support stand 12 than connecting members 14. For example, linear racks 28 of FIG. 2 have three connecting members and four support stands. As also shown in FIG. 2, each linear rack 28 has two rack free ends 86, where the rack free ends are the distal ends of the linear rack 28 where a support stand 12 is located adjacent to a connecting member end 52, 54 that is not connected to another connecting member 14.

However, it should be noted that a linear rack 28 could be formed having an equal number of connecting members 14 to support stands 12 or even a fewer number of support stands 12 than connecting members 14. In such embodiments, the span between support stands 12 would be longer and/or there would be an unsupported length at the rack free ends 86.

Corrals 30 may be formed by joining the rack free ends 86 of several linear racks 28 together utilizing corner assemblies 24. Assembly of a linear rack 28 to an adjacent perpendicularly oriented linear bicycle rack 28 is accomplished by attaching a coupler 26 to one of the rack free ends 86 of a linear rack 28, attaching an elbow 82 to that coupler 26, attaching another coupler 26 to the opposite end of the elbow 82, and then attaching one of the rack free ends 86 of an adjacent perpendicularly aligned linear rack 28 to the elbow 82 utilizing the coupler 26.

As understood from FIG. 2, the generally rectangular corral 30 shown comprises several linear racks 88, 90, 92, 94 connected to adjacent linear racks 88, 90, 92, 94 that are in perpendicular alignment to each other. As shown, a first linear rack 88 is placed in substantially parallel relation to a second linear rack 90, and a third linear rack 92 is placed in substantially perpendicular alignment to the first and second linear racks 88, 90. A first corner assembly 96 is used to connect the rack free ends 86 of the first and third linear racks 88, 92 that are located adjacent to one another. Similarly, a second corner assembly 98 is used to connect the rack free ends 86 of the second and third linear racks 90, 92 that are located adjacent to one another.

FIG. 2 illustrates that an entrance 104 to an interior 32 of the corral 30 may be formed along a fourth linear rack 94 such that a first and second corral end 106, 108 are formed. A third corner assembly 100 is used to connect the rack free ends 86 of the first and fourth linear racks 88, 94 that are located adjacent to one another. Similarly, a fourth corner assembly 102 is used to connect the rack free ends of the second and fourth linear racks 90, 94 that are located adjacent to one another. In this embodiment, the fourth linear rack 94 defines an entrance side number of connecting members 110 and an entrance side number of support stands 112. As shown, the entrance side number of connecting members 110 is three, which is one less than the number of connecting members 12 of the third linear rack 92, and the entrance side number of support stands 112 is five, which is two more than the number of entrance side number of connecting members 110.

As can be understood from FIG. 2, the width of the entrance 104 is dependent upon the number of connecting members 14 utilized. Generally for a rectangularly shaped corral 30, the entrance side number of connecting members 110 is at least one less than the number of connecting members 14 of the third linear rack 92 and the entrance side number of support stands 112 is equal to two more than the entrance side number of connecting members 110. Therefore, it should be understood that entrance 104 to corral 30 may be of alternative widths by utilizing fewer connecting members 110 and support stands 112 while still forming an entrance 104 within the scope of the present invention.

Furthermore, it should also be understood that although corral 30 is shown in FIG. 2 as comprising four connected linear racks 88, 90, 92, 94 with the fourth linear rack 94 including entrance 104, alternative corrals 30 are contemplated within the scope of the present invention. For example, a three-sided corral may be formed by connecting first, second, and third linear racks 88, 90, 92 in the manner described above without utilizing a fourth linear rack 94 or third and fourth corner assemblies 100, 102 (such that the entrance side number of connecting members 110 and entrance side number of support stands 112 are zero). Alternatively, as shown in FIG. 9, a corral 144 that is totally enclosed may be formed by not including an entrance 104. Such various embodiments of corral 30 still enable corral 30 to provide a barrier to an interior 32. Furthermore, temporary fencing may be placed along the perimeter of corral 30 to further limit access to interior 32.

FIG. 2 discloses that linear racks 28 may be placed within the interior 32 of corral 30. As noted above, linear racks 28 may be excluded from interior 32 such that corral 30 is useful as a food court, game area, or the like. Alternatively, variously configured stand assemblies 10, support stands 12, and connecting members 14 may be located within interior 32 of corral 30. For example, a second square or rectangular corral may be placed within corral 30. This second corral may be formed with a fewer number of support stands 12 and connecting members 14 along each linear rack 28 relative to the first, second, third, and fourth linear racks 88, 90, 92, 94 of corral 30 such that the second corral is concentric with corral 30.

FIG. 2 also illustrates that banner displays 114, 116, 118 may be mounted to the various linear racks 28 in the manner previously described. As shown, such banner displays 114, 116, 118 can be used to identify the entrance 104 of the corral 30 and/or used to indicate which row or isle a bicycle is parked in to aid in re-locating

the bicycle. As mentioned, the banner displays 114, 116, 118 may also be used as advertisements, directional indicators, or identify event sponsorship information. Notably, the uniformity of support stand mounting posts 36 and banner display vertical legs 58 enables the banner displays 114, 116, 118 to be assembled to a single linear bicycle rack 28 in a parallel orientation with connecting member 14, as shown by banner display 116, or to connect two independent linear racks 28 in a non-parallel orientation, such as the perpendicular orientation of banner display 118. In the latter case, the display 118 helps stabilize the two linear racks by extending therebetween.

The interchangeability and expandability of the components of the present invention enable several additional useful structures to be formed. For example, FIG. 7 illustrates that a stand assembly 10 may be provided with an alternative mounted member, disclosed as a cover assembly 120, for protecting bicycles 20 from inclement weather. Cover assembly 120 includes first and second vertical cover members 122 that are received by mounting posts 36 of two support stands 12. A horizontal cover member 124 is disposed between and supported by vertical cover members 122 and is used to support a tarpaulin or tarp 126. Tarp 126 may be affixed to the ground by stakes 128 or the like to maintain tarp 126 in position and thus cover the bicycles 20 parked on stand assembly 10. Cover assembly 120 of FIG. 7 is particularly beneficial for activities such as bicycle tours, where bicycles 20 are parked outside while camping. Of course a large tarp may be used to extend over and cover two or more stand assemblies 10 such as when the stand assemblies are spaced parallel to one another, each including a cover assembly 120 as described above.

Another alternative mounted member would be a lighting structure comprising lights that could be utilized with the components of the banner display 16 of FIG. 1 or the cover assembly 120 of FIG. 7. The lighting structure could either be added to the banner display 16 or replace banner 70. Similarly, the lighting structure could either be added to the cover assembly 120 or replace tarp 126. In either case, stand assembly 10 would provide a convenient and portable structure for temporary lighting. The lights could be either battery powered or electrically powered with the cord either wrapping around legs 58 or vertical cover members 122, or strung through the hollow interior of legs 58 or members 122.

Another alternative use for the components of the present invention is as a standalone banner display 130 utilizing an alternative connecting member 132. As shown in FIG. 8, a substantially shorter connecting member 132 than that typically

used for stand assembly 10 is used to create compact standalone banner display 130. For example, whereas the preferred embodiment of stand assembly 10 utilizes a connecting member 14 that is approximately ten feet in length, standalone banner display 130 is assembled with a connecting member 132 that is approximately five feet in length. This shortened connecting member 132 is also, in the preferred embodiment, supplied by the Plasti-Bond division of Robroy Industries and is of similar construction to the connecting member 14 of stand assembly 10. The horizontal member 134 of the standalone banner display 130 is correspondingly shorter than the horizontal support rod 62 of the banner display 16 of stand assembly 10.

Standalone banner display 130 thus provides a unique information display apparatus apart from the bicycle parking features of stand assembly 10. The compact nature of standalone banner display 130 enables it to be placed in locations having limited space, for example along a sidewalk at a special event. Standalone banner display 130 is thus able to communicate all manner of information and provides an additional beneficial use to special event planners.

Notably, several components of banner display 16, cover assembly 120, and standalone banner display 130, in the preferred embodiment, are also produced by the Plasti-Bond division of Robroy Industries. Specifically, the legs 58, couplers 64, and rod 62 of banner display 16; the horizontal and vertical cover members 124, 122 of cover assembly 120; and the horizontal member 134 of standalone display 130 are constructed similarly to connecting member 14, couplers 26, and elbow 82, but made of aluminum material of smaller diameter.

As shown in FIG. 9, a corral 144 that is totally enclosed may be formed using connecting members 14 and support stands 12 of the present invention. The totally enclosed corral 144 of FIG. 9 utilizes multiple support stands 12 and connecting members 14 on each side 146. However, it should be understood that sides 146 having more or fewer support stands 12 and connecting members 14 could be formed to create larger or smaller totally enclosed corrals 144. Such a totally enclosed corral 144 could be used to limit access to an interior area 148 or as a bicycle rack where bicycles would only be parked on the exterior of sides 146. Temporary fencing may also be placed against the sides 146 of corral 144 to further limit access to interior 148.

Still further additional and useful structures that may be formed using the components of the present invention are shown in FIGS. 10 and 11, which disclose a support stand 12 by telescopic mounting over upright mounting post 36 having an alternative mounted member assembled thereto. The mounted member of FIG. 10 is a flag display 150 comprising a leg 58 attached to support stand 12 and a flag 152 attached to leg 58. Flag display 150 is useful for such purposes as marking a bike route, identifying an entrance to a special event, directing traffic, or the like. The mounted member of FIG. 11 is a temporary lighting stand 154 comprising a leg 58 attached to support stand 12 by telescopic mounting over upright mounting post 36 and a light 156 affixed to leg 58. Lighting stand 154 is useful for such purposes as providing emergency lighting or temporary special event lighting.

An alternative or additional method of theft prevention of a stand assembly 10, linear rack 28, or corral 30 can be seen in FIGS. 2, 6, and 7 as cable lock 136. The hollow structure of connecting members 14, couplers 26, and stand sleeves 38 enables a wire or cable 138 to be passed through the various components of an assembled stand assembly 10, linear bicycle rack 28, or corral 30. Cable 138 is provided with integral loop cable ends 140 that are adapted to receive a lock 142 and, when lock 142 is locked to cable ends 140, prevents couplers 26 from being removed from connecting members 14 and prevents connecting members 14 from being removed from stand sleeves 38. Although not shown, it is understood that cable 138 could be adapted to loop around an immovable object, such as a lamp post 74, thereby preventing the entire assembled stand assembly 10, linear rack 28, or corral 30 from being moved.

As mentioned above, the attachment member of the embodiment described is stand sleeve 38 that forms a clearance fit connection with connecting member 14 slidably or telescopically received therethrough. However, alternative attachment members are contemplated within the scope of the present invention. For example, the attachment member could be formed as a solid or hollow rod having externally threaded ends adapted to receive a coupler 26. In this embodiment, connecting members 14 would then be attached to support stands 12 by threading into the opposite end of the coupler 26 attached to the threaded attachment member. An alternatively contemplated attachment member includes internal threads within a hollow rod where the internal threads of the attachment member are adapted to receive the threaded ends 53 of connecting members 14. Still further, an alternative

attachment member could be formed as a hollow or solid rod of a diameter adapted to fit within the hollow connecting members 14. In this embodiment, connecting members 14 would be slip fit over the attachment member and could be secured thereto by use of a securing pin, or alternately, a lock 22 when a through hole was included on the attachment member aligned with a through hole in the connecting member.

Although the connecting members 14 are shown throughout the several views as being linearly straight, it should be understood that alternatively shaped connecting members 14 could be used alone or in conjunction with the straight connecting members 14. For example, a series of curved connecting members could be used such that a curved rack or a circular corral is formed. Further, alternative length connecting members 14 could be utilized within the scope of the present invention and still create a portable and expandable event rack. Alternatively constructed elbows 82 of corner assemblies 24 could also be utilized to create differently shaped corrals 30. For example, five elbows with 72-degree bends could be used to create a pentagon shaped bicycle corral.

It should also be understood that alternative methods of connecting the connecting members 14 together may be employed within the scope of the present invention. For example, connecting members 14 could have a male end and a female end such that the female end of one connecting member 14 receives the male end of another connecting member 14. In such embodiments the ends could slip fit together and receive a cottar style pin or the ends could be threaded such that connecting members 14 thread directly together.

Alternative embodiments of support stands 12 could also be employed while still providing an expandable event rack. For example, the shape of frame 34 could be circular, rectangular, pentagonal, or the like, and utilize an alternatively shaped and constructed stabilizer foot 40, such as circular, pentagonal, rectangular, or the like. Further, mounting post 36 could be a separate component that is assembled to frame 34 of support stand 12 as needed, such as by a threaded connection.

The above is a description of the preferred embodiments. One skilled in the art will recognize that changes and modifications may be made without departing from the spirit of the disclosed invention, the scope of which is to be determined by the claims which follow and the breadth of interpretation that the law allows.